

CLAIMS

1. A composition for pharmaceutical, veterinary, food, dietetic or cosmetic use, comprising 1% to 50% by weight of one or more active ingredients, 50% to 99% by weight of a carrier comprising one or more polymers, optionally one or more diluents and optionally one or more additives, in particular a flavoring or a coloring, said composition being characterized in that it has a fast-dissolving isotropic microporous expanded structure and the polymers being chosen from the group consisting of polymers of plant origin, optionally in combination with polymers of animal origin or synthetic polymers, and said carrier being such that the binding polymer(s) are present in the composition in a proportion greater than or equal to 1% (w/w) and more particularly of between 6% and 98% (w/w) and in that it is capable of being obtained by the method comprising the steps of:

- homogenizing a pasty formulation comprising the active ingredient(s), the polymer(s), optionally the additive(s) and the diluents,
- injecting into a molding component,
- simultaneous drying and molding by a microwave or high-frequency type method with a vacuum level of between 30 and 700×10^2 Pa.

2. The fast-dissolving composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in claim 1, characterized in that the polymer of plant origin is chosen from the polysaccharides obtained by chemical or enzymatic hydrolysis of the chemically modified starch, the polymers of the chemically modified cellulosic type or the polymers of the gum type or mixtures thereof.

3. The fast-dissolving composition for pharmaceutical, veterinary, food, dietetic or cosmetic

use as claimed in claim 2, characterized in that the polysaccharide is chosen from maltodextrins or glucose syrups, and sodium glycolates of starch or mixtures thereof.

4. The fast-dissolving composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in claim 3, characterized in that the polymer of plant origin is chosen from maltodextrins and glucose syrups having a dextrose equivalent (DE) level of between 3 and 50 and preferably between 6 and 34 or mixtures thereof.

5. The fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in claim 2, characterized in that the polymer of plant origin of the cellulosic type is chosen from carboxymethyl cellulose sodium low or medium viscosity, hydroxypropyl methyl cellulose, hydroxypropyl cellulose, hydroxyethyl cellulose or mixtures thereof.

6. The fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic use [lacuna] claim 2, characterized in that the polymer of plant origin is of the guar gum, gum arabic, xanthane, pectin and alginate type or mixtures thereof.

7. The fast-dissolving pharmaceutical, veterinary, food, dietetic or cosmetic composition as claimed in claim 1, characterized in that the synthetic polymer is polyvinylpyrrolidone.

8. The fast-dissolving composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in claim 1, characterized in that the polymer of animal origin is chosen from sodium caseinates, chitosan, their water-soluble hydrolysis

derivatives, gelatin, collagen, chondroitin acid sulfate and hydrolysates thereof or mixtures thereof.

9. The fast-dissolving isotropic expanding
5 microporous composition for pharmaceutical, veterinary,
food, dietetic or cosmetic use as claimed in any one of
the preceding claims, characterized in that said
polymer(s) is/are present in the formulation at a
percentage at least equal to 1% (w/w) and more
10 particularly between 6% and 98% (w/w), and compatible
with a viscosity of between 100 mPa.s and
100,000 mPa.s.

10. The fast-dissolving isotropic expanded microporous
15 pharmaceutical, veterinary, food, dietetic or cosmetic
composition as claimed in claim 9, characterized in
that said polymer(s) are present in the formulation at
a percentage at least equal to 1% (w/w) and more
particularly between 6 and 98% (w/w), and compatible
20 with a viscosity of between 100 and 50,000 mPa.s.

11. The fast-dissolving isotropic expanded microporous
composition for pharmaceutical, veterinary, food,
dietetic or cosmetic use, characterized in that the
25 optional diluent is chosen from mannitol, sucrose,
lactose, fructose, sorbitol, xylitol, maltitol and
dicalcium phosphate dihydrate.

12. The fast-dissolving isotropic expanded microporous
30 composition for pharmaceutical, veterinary, food,
dietetic or cosmetic use as claimed in one of the
preceding claims, characterized in that the density is
less than 0.9 g/cm³.

13. The fast-dissolving isotropic expanded microporous
35 composition for pharmaceutical, veterinary, food,
dietetic or cosmetic use as claimed in claim 12,
characterized in that the density is between 0.2 and
0.7 g/cm³.

14. The fast-dissolving composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in one of the preceding claims, characterized in that it has a disintegration time of less than 1 minute, preferably 30 seconds, under conditions of use on direct contact with a mucous membrane in particular the buccal mucous membrane or in an appropriate volume of water.

15. The fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in one of the preceding claims, characterized in that the active ingredient(s) in the isotropic expanded microporous matrix are in the dissolved or dispersed state or in film-coated forms.

16. The fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in claim 15, characterized in that the active ingredient(s) are chosen, without limitation, from analgesics, antimigraines, antipyretic analgesics and/or anti-inflammatory agents, local anesthetics, antianginals, anticholinergic antispasmodics, antisecretory agents, muscle relaxants, antinauseants, central and peripheral vasodilators.

17. The fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in claim 16, characterized in that the active ingredient is chosen from the group consisting of Milnacipran, piroxicam, phloroglucinol, domperidone.

18. The fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in one of the

preceding claims, characterized in that the final packaging serving as molding component is of the polypropylene type.

5 19. The fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in one of claims 1 to 17, characterized in that the final packaging is of the polytetrafluoroethylene type (e.g.: Teflon®).

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20. A method for preparing a fast-dissolving composition for pharmaceutical, veterinary, food, dietetic or cosmetic use as claimed in claims 1 to 19, characterized in that a pasty formulation comprising
15 one or more active ingredients, one or more polymers, optionally one or more additives and one or more diluents is homogenized, it is injected into a molding component, and then in that drying and molding are carried out simultaneously by a microwave or high
20 frequency type process with a vacuum level of between 30 and 700×10^2 Pa and preferably between 60 and 500×10^2 Pa (30 and 700 mbar and preferably between 60 and 500 mbar) to give rise to an isotropic microporous expanded structure of regular form, in particular
25 having a density of less than 0.9 g/cm^3 .

21. The method for preparing a fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic
30 use as claimed in claim 20, characterized in that the pasty formulation obtained by homogenization has a viscosity of between 100 mPa.s and $100,000 \text{ mPa.s}$, preferably between 100 and $50,000 \text{ mPa.s}$, followed by injection or extrusion of this mass into the final
35 packaging.

22. The method for preparing a fast-dissolving isotropic expanded microporous composition for pharmaceutical, veterinary, food, dietetic or cosmetic

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